

Notice of Allowability

Application No.

10/762,957

Examiner

Kamran Afshar, 571-272-7796

Applicant(s)

ALFANO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/19/06 & 10/26/06.
2. ☒ The allowed claim(s) is/are _____.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/04/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. JOHN J.

OSKOREP Reg. No. 41,234 on 10/19/06 & 10/26/06.

The application has been amended as follows:

In The Claims:

1. (Currently Amended) A method for use in re-establishing communication for a wireless communication device in a wireless communication network after a communication loss ~~therebetween~~, the method comprising the acts of:

· in the wireless communication network:

_____ receiving an indication of the communication loss between the wireless device and the wireless network;

_____ based on receiving the indication of the communication loss, adding an identifier of the wireless device to a list of wireless devices experiencing such communication losses in the wireless network; and

_____ causing identifiers of the list to be broadcasted in the wireless network, ~~where the identifier of the wireless device is for use in being identified by the wireless device upon recovery from the communication loss, to thereby cause the wireless device to transmit a control message which informs the wireless network of the presence and recovery of the wireless device from the communication loss; and~~

in the wireless device:

_____ after recovering from the communication loss, receiving signals from the wireless network;

_____ decoding the broadcasted identifiers of the list from the wireless network;

_____ comparing each broadcasted identifier of the list with an identifier of the wireless device; and

based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting the control message which informs the wireless network of the presence of the wireless device.

2. (Original) The method of claim 1, further comprising the acts of:
receiving an indication that communication is re-established between the wireless device and the wireless network; and

based on receiving the indication that communication is re-established, removing the identifier of the wireless device from the list.

3. (Original) The method of claim 1, wherein the act of causing the identifiers of the list to be broadcasted comprises the further act of causing the identifiers of the list to be broadcasted on a regular basis.

4. (Original) The method of claim 1, wherein the act of causing the identifiers of the list to be broadcasted comprises the further act of causing the identifiers of the list to be broadcasted over a control channel of the wireless network.

5. (Original) The method of claim 1, comprising further the act of:
removing the identifier of the wireless device from the list after an expiration of a period of time.

6. (Canceled)

7. (Original) The method of claim 1, wherein the wireless network comprises a cellular telecommunications network.

8. (Previously Presented) In a wireless communication device, a method for use in re-establishing communication with a wireless communication network after a communication loss therewith, the method comprising the acts of:

after recovering from the communication loss, decoding broadcasted identifiers of a list of wireless communication devices identified to have experienced such communication losses in the wireless network;

comparing each broadcasted identifier with an identifier of the wireless device;

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based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting a control message which informs the wireless network of the presence and recovery of the wireless device from the communication loss; and

refraining from transmitting the control message if none of the broadcasted identifiers match the identifier of the wireless device.

9. (Previously Presented) The method of claim 8, wherein the control message is transmitted by the wireless device so that any pending messages in the network will be sent to the wireless device upon recovery from the communication loss.

10. (Original) The method of claim 8, wherein the act of decoding broadcasted identifiers comprises the further act of decoding the broadcasted identifiers over a control channel of the wireless network.

11. (Original) The method of claim 8, wherein the broadcasted identifiers comprise one of identification numbers and an IP addresses.

12. (Original) The method of claim 8, wherein the wireless device comprises a cellular mobile station.

13. (Currently Amended) A wireless communication device which is adapted to re-establish communication with a wireless communication network after a communication loss, comprising:

a receiver;

a transmitter;

an antenna coupled to the receiver and the transmitter;

the receiver and the transmitter ~~being operative to communicate through a~~ adapted to communicate with the wireless communication network;

one or more processors coupled to the receiver and the transmitter;

the one or more processors ~~being operative~~ adapted to:

after the wireless device recovers from a communication loss with the wireless network, decode broadcasted identifiers of wireless communication devices identified to have experienced such communication losses in the wireless network;

compare each broadcasted identifier with an identifier of the wireless device;

cause a control message which informs the wireless network of the presence and recovery of the wireless device from the communication loss to be transmitted through

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the transmitter, based on a match between a broadcasted identifier and the identifier of the wireless device; and

refrain from causing the control message to be transmitted through the transmitter if none of the broadcasted identifiers match the identifier of the wireless device.

14. (Previously Presented) The wireless communication device of claim 13, the control message is transmitted by the wireless device so that any pending messages in the network will be sent to the wireless device upon recovery from the communication loss.

15. (Original) The wireless communication device of claim 13, further comprising a cellular mobile station.

16. (Original) The wireless communication device of claim 13, wherein one or more processors are further operative to decode broadcasted identifiers over a control channel of the wireless network.

17. (Original) The wireless communication device of claim 13, wherein the broadcasted identifiers comprise one of identification numbers and an IP addresses.

18. (Previously Presented) In a wireless communication device, a method for use in re-establishing communication with a wireless communication network after a loss of communication therewith, the method comprising the acts of:

after recovering from the communication loss, monitoring a control channel of the wireless network;

decoding broadcasted identifiers of wireless communication devices identified in the wireless network to have experienced such communication losses in the wireless network;

comparing each broadcasted identifier with an identifier of the wireless device;

based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting a control message which informs the network of the presence and recovery of the wireless device from the communication losses, so that any pending messages in the network will be sent to the wireless device; and

refraining from transmitting the control message if none of the broadcasted identifiers match the identifier of the wireless device.

19. (Currently Amended) A cellular telecommunications system comprising:

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a cellular network infrastructure ~~being operative to~~ adapted to:

receive indications of communication losses with one or more cellular mobile stations;

add identifiers of the one or more cellular mobile stations associated with communication losses to a list;

cause the identifiers in the list to be broadcasted through the cellular network infrastructure on a regular basis;

each of the one or more cellular mobile stations ~~being operative~~ adapted to:

after recovering from a communication loss, decode the broadcasted identifiers from the cellular network infrastructure;

compare each broadcasted identifier with an identifier of the cellular mobile station; and

cause a control message which informs the network of the presence and recovery of the cellular mobile station from the communication loss to be transmitted based on a match between a broadcasted identifier and the identifier of the cellular mobile station.

20. (Original) The cellular telecommunications network of claim 19, wherein each cellular mobile station is further operative to normally refrain from transmitting any control message to the cellular network infrastructure, unless a match exists between a broadcasted identifier and the identifier of the cellular mobile station.

21. (Previously Presented) A method for use in re-establishing a data connection between an application server and a wireless communication device operating in a wireless communication network, the method comprising the acts of:

storing an identifier of the application server in association with an identifier of the wireless device;

receiving an indication of a communication loss between the wireless device and the wireless network which causes the data connection to be terminated;

after the communication loss, receiving an indication that communication is re-established between the wireless device and the wireless network; and

providing the stored association of identifiers of the application server and the wireless device to assist in re-establishing the data connection between the wireless device and the application server.

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22. (Previously Presented) The method of claim 21, wherein the act of storing the identifier is performed in response to the act of receiving the indication of the communication loss.

23. (Original) The method of claim 21, wherein the act of storing the identifier is performed prior to the act of receiving the indication of the communication loss.

24. (Original) The method of claim 21, wherein the act of storing the identifier of the application server comprises the further act of storing an application server name of the application server.

25. (Previously Presented) The method of claim 21, comprising the further act of: using the identifier of the application server, contacting the application server to cause the connection to be re-established.

26-42. (Canceled)

43. (Currently Amended) In a cellular mobile station, a method of re-establishing communication with a cellular telecommunication network which operates to push information to the cellular mobile station, the method comprising acts of:

~~operating in a cellular telecommunications network to receive information which is pushed via the cellular network;~~

detecting that a signal strength of signals received from the cellular network is below a predetermined threshold;

based on detecting that the signal strength of the signals received from the cellular network is below the predetermined threshold, scanning for signals from one or more additional cellular telecommunications networks;

in response to signals from one or more additional cellular telecommunications networks being inadequate for communication, transmitting on a regular basis a control message which informs the cellular network of the presence of the cellular mobile station; and

normally refraining from transmitting control messages when the signals from the one or more additional cellular telecommunication networks are adequate for communication; and receiving information which is pushed via the cellular network.

44. (Canceled)

45. (Original) The method of claim 43, further comprising:

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wherein the act of operating in the cellular telecommunications network comprises the further act of receiving e-mail information pushed from the cellular telecommunications network.

46. (Currently Amended) A cellular mobile station which is adapted to re-establish communication with a cellular telecommunication network after a communication loss, the cellular mobile station comprising:

a receiver;

a transmitter;

an antenna coupled to the receiver and the transmitter;

one or more processors coupled to the receiver and the transmitter ~~which operate to receive information which is pushed from a cellular telecommunications network;~~

the one or more processors being ~~operative~~ adapted to detect that a signal strength of signals received through the receiver from the cellular network is below a predetermined threshold;

the one or more processors being further ~~operative~~ adapted to, based on detecting that the signal strength is below the predetermined threshold, scan for signals from one or more additional cellular networks with use of the receiver;

the one or more processors being further ~~operative~~ adapted to, in response to signals from one or more additional cellular networks being inadequate for communication, cause a control message which informs the cellular network of the presence of the cellular mobile station to be transmitted through the transmitter on a regular basis; and

the one or more processors being further ~~operative~~ adapted to normally refrain from causing control messages to be transmitted while the signals from the one or more additional cellular networks are adequate for communication; and

the one or more processors being further adapted to receive information, through the receiver, which is pushed via the cellular network.

47. (Currently Amended) In a wireless communication device, a method of operating to re-establish communication between the wireless device and a wireless communication network comprising the acts of:

receiving radio frequency (RF) signals from a wireless communication network during communication therewith;

detecting that a signal strength of the RF signals is no longer adequate for communication;

scanning to identify a new RF signal for communication;

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in response to failing to identify a new RF signal for communication during the scanning, periodically scanning to identify a new RF signal for communication;

in response to identifying a new RF signal for communication during the scanning, transmitting a control message to re-establish the communication; and

normally refraining from transmitting such control messages until the new RF signal is identified from the scanning; and

operating in the wireless network to receive information which is pushed via the wireless network.

48. (Original) The method of claim 47, wherein the act of detecting comprises identifying that a received signal strength indicator (RSSI) is below a predetermined threshold.

49. (Previously Presented) The method of claim 47, wherein the control message informs the network of the presence of the wireless device to re-establish the communication.

50. (Original) The method of claim 47, comprising the further act of:
entering into a sleep mode between periods of the periodic scanning.

51. (Currently Amended) The method of claim 47, further comprising:
operating in the wireless network to receive e-mail information which is pushed via the wireless network.

52. (Previously Presented) A wireless communication device which is adapted to re-establish communication with a wireless communication network after a communication loss, the wireless communication device comprising:

a receiver which receives radio frequency (RF) signals from a the wireless communication network during wireless communication therewith;

a signal strength detector which detects a signal strength of the RF signals;

a transmitter;

one or more processors coupled to the receiver and the transmitter;

the one or more processor being operative to:

determine that the RF signals are no longer adequate for communication based on the signal strength detector;

in response to the determination, cause the wireless device to enter into a first mode of scanning to identify a new RF signal for communication;

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in response to failing to identify a new RF signal in the first mode of scanning, cause the wireless device to enter into a second mode of periodic scanning to identify a new RF signal for communication;

in response to identifying a new RF signal for communication during the scanning, cause the transmitter to transmit a control message to re-establish communications; and

normally refrain from causing the transmitter to transmit such control messages until the new RF signal is identified from the scanning; and

operate the wireless device in the wireless network to receive information which is pushed via the wireless network.

53. (Currently Amended) The wireless communication device of claim 52, wherein the one or more processors are further operative to:

operate the wireless device in the wireless network to receive e-mail information which is pushed via the wireless network.

54. (Original) The wireless communication device of claim 52, wherein the one or more processors cause the wireless device to enter into a sleep mode of operation between periods of the periodic scanning in the second mode of periodic scanning.

Allowable Subject Matter

2. In view of the amended claims as discussed above in item 1, Claims 1-5, 7-25, 43, 45-54 are allowed.

The following is an examiner's statement of reasons for allowance: 1-5, 7-25, 43, 45-54.

With respect to claim 1, the prior art of record fails to disclose singly or in combination or render obvious that based on receiving the indication of the communication loss, adding an identifier of the wireless device to a list of wireless devices experiencing such communication losses in the wireless network; causing identifiers of the list to be broadcasted in the wireless network; and in the wireless device: after recovering from the communication loss, receiving signals from the wireless network; decoding the broadcasted identifiers of the list from the

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wireless network; comparing each broadcasted identifier of the list with an identifier of the wireless device; and based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting the control message which informs the wireless network of the presence of the wireless device.

With respect to claim 8, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising the acts of: after recovering from the communication loss, decoding broadcasted identifiers of a list of wireless communication devices identified to have experienced such communication losses in the wireless network; comparing each broadcasted identifier with an identifier of the wireless device; based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting a control message which informs the wireless network of the presence and recovery of the wireless device from the communication loss; and refraining from transmitting the control message if none of the broadcasted identifiers match the identifier of the wireless device.

With respect to claim 13, the prior art of record fails to disclose singly or in combination or render obvious that after the wireless device recovers from a communication loss with the wireless network, decode broadcasted identifiers of wireless communication devices identified to have experienced such communication losses in the wireless network; compare each broadcasted identifier with an identifier of the wireless device; cause a control message which informs the wireless network of the presence and recovery of the wireless device from the communication loss to be transmitted through the transmitter, based on a match between a broadcasted identifier and the identifier of the wireless device; and refrain from causing the control message to be transmitted through the transmitter if none of the broadcasted identifiers match the identifier of the wireless device.

With respect to claim 18, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising the acts of: after recovering from the communication loss, monitoring a control channel of the wireless network; decoding broadcasted identifiers of wireless communication devices identified in the wireless network to have experienced such

communication losses in the wireless network; comparing each broadcasted identifier with an identifier of the wireless device; based on a match between a broadcasted identifier and the identifier of the wireless device, transmitting a control message which informs the network of the presence and recovery of the wireless device from the communication losses, so that any pending messages in the network will be sent to the wireless device; and refraining from transmitting the control message if none of the broadcasted identifiers match the identifier of the wireless device.

With respect to claim 19, the prior art of record fails to disclose singly or in combination or render obvious that add identifiers of the one or more cellular mobile stations associated with communication losses to a list; cause the identifiers in the list to be broadcasted through the cellular network infrastructure on a regular basis; each of the one or more cellular mobile stations being adapted to: after recovering from a communication loss, decode the broadcasted identifiers from the cellular network infrastructure; compare each broadcasted identifier with an identifier of the cellular mobile station; and cause a control message which informs the network of the presence and recovery of the cellular mobile station from the communication loss to be transmitted based on a match between a broadcasted identifier and the identifier of the cellular mobile station.

With respect to claim 21, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising the acts of: storing an identifier of the application server in association with an identifier of the wireless device; receiving an indication of a communication loss between the wireless device and the wireless network which causes the data connection to be terminated; after the communication loss, receiving an indication that communication is re-established between the wireless device and the wireless network; and providing the stored association of identifiers of the application server and the wireless device to assist in re-establishing the data connection between the wireless device and the application server

With respect to claim 43, the prior art of record fails to disclose singly or in combination or render obvious that based on detecting that the signal strength of the signals received from the cellular network is below the predetermined threshold, scanning for signals from one or more additional cellular telecommunications networks; in response to signals from one or more additional cellular telecommunications networks being inadequate for communication, transmitting on a regular basis a control message which informs the cellular network of the presence of the cellular mobile station; normally refraining from transmitting control messages when the signals from the one or more additional cellular telecommunication networks are adequate for communication; and receiving information which is pushed via the cellular network.

With respect to claim 46, the prior art of record fails to disclose singly or in combination or render obvious that the one or more processors being further adapted to, based on detecting that the signal strength is below the predetermined threshold, scan for signals from one or more additional cellular networks with use of the receiver; the one or more processors being further adapted to, in response to signals from one or more additional cellular networks being inadequate for communication, cause a control message which informs the cellular network of the presence of the cellular mobile station to be transmitted through the transmitter on a regular basis; the one or more processors being further adapted to normally refrain from causing control messages to be transmitted while the signals from the one or more additional cellular networks are adequate for communication; and the one or more processors being further adapted to receive information, through the receiver, which is pushed via the cellular network.

With respect to claim 47, the prior art of record fails to disclose singly or in combination or render obvious that detecting that a signal strength of the RF signals is no longer adequate for communication; scanning to identify a new RF signal for communication; in response to failing to identify a new RF signal for communication during the scanning, periodically scanning to identify a new RF signal for communication; in response to identifying a new RF signal for communication during the scanning, transmitting a control message to re-establish the communication; normally refraining from transmitting such control messages until the new RF signal is identified from the

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scanning; and operating in the wireless network to receive information which is pushed via the wireless network.

With respect to claim 52, the prior art of record fails to disclose singly or in combination or render obvious that determine that the RF signals are no longer adequate for communication based on the signal strength detector; in response to the determination, cause the wireless device to enter into a first mode of scanning to identify a new RF signal for communication; in response to failing to identify a new RF signal in the first mode of scanning, cause the wireless device to enter into a second mode of periodic scanning to identify a new RF signal for communication; in response to identifying a new RF signal for communication during the scanning, cause the transmitter to transmit a control message to re-establish communications; normally refrain from causing the transmitter to transmit such control messages until the new RF signal is identified from the scanning; and operate the wireless device in the wireless network to receive information which is pushed via the wireless network.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.


If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, Feild, Joseph can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kamran Afshar


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER